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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/869,754	09/13/2001	Paul Raymond Gregson	10256.95	8554

22913 7590 10/31/2003

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EXAMINER

BOS, STEVEN J

ART UNIT PAPER NUMBER

1754

DATE MAILED: 10/31/2003

11 KB

Please find below and/or attached an Office communication concerning this application or proceeding.

11kb

**Office Action Summary**

Application No.

09/869,754

Applicant(s)

GREGSON ET AL.

Examiner

Steven Bos

Art Unit

1754

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on 29 September 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☐ Claim(s) 26-60 is/are pending in the application.
- 4a) Of the above claim(s) 44-57 and 60 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 26-43, 58 and 59 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) 26-60 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on 13 September 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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*The restriction requirement of paper no. 7 is withdrawn in favor of the following:*  
Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 26-43, 58, 59, drawn to a process and an apparatus for treating uranium containing material using plasma/ionization and a magnetic field.

Group II, claim(s) 44-57, 60-65, drawn to a process and an apparatus for enriching uranium containing material using electromagnetic radiation.

The inventions listed as Groups I and II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: Group II requires electromagnetic radiation which is not required by Group I. Also, Group I requires plasma/ionization and a magnetic field which is not required by Group I.

During a telephone conversation with Dana L. Tangren on October 22, 2003 a provisional election was made with traverse to prosecute the invention of Group I, claims 26-43, 58, 59. Affirmation of this election must be made by applicant in replying to this Office action. Claims 44-57, 60<sup>65</sup> are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

*It is noted that claims 61-65 were canceled in paper no. 10, but have been treated above for restriction purposes.*

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Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

The disclosure is objected to because of the following informalities: pp. 1,5,7,14,16,17,18,26 contain illegible material.

Appropriate correction is required.

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 26,31,33,34,36,39,41,59 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 26, line 3, "the uranium containing material" lack(s) proper antecedent basis in the claim(s).

In claim 26, penultimate line, "the fluorine gas and uranium containing material contact stage" lack(s) proper antecedent basis in the claim(s).

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In claim 31, "plutonium" and "fission products" is indefinite as to where these come from since all that is fed to the separator stage is uranium fluoride.

In claim 33, "the fluorine/uranium containing material contact stage" lack(s) proper antecedent basis in the claim(s).

In claim 34, "the uranium containing material" lack(s) proper antecedent basis in the claim(s).

In claim 34, penultimate line, "the fluorine gas and uranium containing material contact stage" lack(s) proper antecedent basis in the claim(s).

In claim 36, "the nuclear fuel cycle" lack(s) proper antecedent basis in the claim(s).

In claim 39, "plutonium" and "fission products" is indefinite as to where these come from since all that is fed to the separator stage is uranium fluoride.

In claim 41, "the fluorine/uranium containing material contact stage" lack(s) proper antecedent basis in the claim(s).

In claim 59, three lines from the bottom, "the non-ionised parts" lack(s) proper antecedent basis in the claim(s).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Claims 26-43, 58, 59 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 97/34684 in view of either WO 97/27595 or Burk '999.

WO '684 teaches the instantly claimed process of converting uranium fluoride into a plasma/ionized form in a magnetic field to separate uranium from fluorine as well as an apparatus therefore but may differ in that contacting uranium material with fluorine gas to form uranium fluoride may not be stated. See pp. 3, 4, 5, 6, 18, 19, 21, and the claims.

Each of WO '595 and Burk teaches contacting uranium with fluorine gas to form uranium fluoride and an apparatus therefore. See pg. 3 and bottom of col. 4, respectively.

It would have been obvious to one skilled in the art to use the uranium fluoride formed by the secondary references in the process of WO '684 because WO '684 requires uranium fluoride. See *In re Kamlet* 88 USPQ 106. It would have been obvious to one skilled in the art to use the combination of apparatus provided by the primary and secondary references in order to perform the combination of taught processes.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven Bos whose telephone number is 703-308-2537.

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The examiner can normally be reached on M-F, 8AM-6PM but is on increased flexitime sch.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached on 703-308-3837. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

A handwritten signature in black ink, appearing to read "S. Bos", with a long horizontal stroke extending to the left.

Steven Bos  
Primary Examiner  
Art Unit 1754

sjb